

**EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Michael J. Schmidt, #34,007, on 3/11/10.

2. The application has been amended as follows:

**IN THE CLAIMS:**

3. **Claim 9 has been canceled.**
4. **Claim 49 has been rejoined.**
5. **Claims 43, 47-50, and 53 are amended** as follows:

CLAIM 43. (currently amended) A double pipe structure in which an inner pipe for circulating fluid of high pressure is disposed in an outer pipe for circulating fluid of low pressure and the inner pipe and the outer pipe are formed differently from each other and are joined to the joint member at respective end portions, wherein

the inner pipe and the outer pipe each define ~~are each joined to the joint member by a~~ plastically deformed area directly engaging the joint member for joining the joint member to the inner and outer pipes,

the joint member includes a cylindrical portion formed at an end of the joint member and connected to the outer pipe, an insertion hole, through which the inner pipe extends, is formed at an opposite end of the joint member inside the joint member, and a port for refrigerant of low pressure and a port for refrigerant of high pressure are connected to another pipe,

the inner pipe protrudes from an end portion of the outer pipe, extends through the insertion hole through the cylindrical portion, and is joined to the opposite end of the joint member by drawing for expanding an end portion of the inner pipe to form the plastically deformed area of the inner pipe or by bead pressure-contact machining the end portion of the inner pipe to form the plastically deformed area of the inner pipe, and

the outer pipe is joined to the cylindrical portion formed at the end of the joint member by drawing for contracting the end portion of the outer pipe to form the plastically deformed area of the outer pipe.

CLAIM 47. (currently amended) A double pipe structure comprising:

a double pipe in which an inner pipe is laid in an outer pipe, said inner pipe and said outer pipe being formed differently from each other; and

a joint member joined ~~jointed~~ to an end portion of said inner pipe and an end portion of said outer pipe; wherein

said inner pipe is joined jointed to said joint member in at a state in which said inner pipe is arranged eccentric with respect to said outer pipe;

an end portion of the inner pipe and an end portion of the outer pipe each define a plastically deformed area directly engaging the joint member for joining the joint member to the inner and outer pipes; and

the end portion of the inner pipe extends from the end portion of the outer pipe, extends through an insertion hole defined by the joint member and is joined to the joint member by expanding the end portion of the inner pipe at a side of the joint member to form the plastically deformed area of the inner pipe.

CLAIM 48. (currently amended) A double pipe structure according to ~~the new~~ claim 47, wherein said joint member has a port and an extending passage extending from said outer pipe and communicating with the port, and wherein said inner pipe is arranged eccentric with respect to said outer pipe on an opposed side to the port.

CLAIM 49. (currently amended) A double pipe structure according to ~~the new~~ claim 47, wherein a bent portion is formed in a portion of said double pipe in the longitudinal direction.

CLAIM 50. (currently amended) A double pipe structure according to ~~the new~~ claim 47, wherein a fluid of high pressure circulates in said inner pipe and a fluid of low pressure circulates in said outer pipe.

CLAIM 53. (currently amended) A double pipe structure comprising:

a double pipe in which an inner pipe is laid in an outer pipe, said inner pipe and said outer pipe being formed differently from each other, and

a joint member joined jointed to an end portion of said inner pipe and an end portion of said outer pipe; wherein

said joint member includes a body, a cylindrical male portion protruding from the body and to which said outer pipe is connected, an extending passage extending from said outer pipe and communicating with a hollow portion of the cylindrical male portion, and a groove, a diameter of the groove being smaller than an outer diameter of the cylindrical male portion, formed on the cylindrical male portion, and wherein

said outer pipe is disposed over the cylindrical male portion of said joint member, the end portion of said outer pipe defining defines a plastically deformed area disposed within the groove of the cylindrical male portion to join the outer pipe to the cylindrical male portion of said joint member.

**REASONS FOR ALLOWANCE:**

6. The following is an examiner's statement of reasons for allowance:

With regard to claim 7, the prior art of record does not teach or suggest a double pipe structure in which an inner pipe for circulating fluid of high pressure is disposed in an outer pipe for circulating fluid of low pressure and the inner pipe and the outer pipe are formed differently from each other and are joined to a joint member at respective end portions, wherein an end

portion of the inner pipe and an end portion of the outer pipe each define a plastically deformed area directly engaging the joint member for joining the joint member to the inner and outer pipes; and the end portion of the inner pipe extends from the end portion of the outer pipe, through an insertion hole defined by the joint member, and is joined to the joint member by expanding the end portion of the inner pipe at a side of the joint member to form the plastically deformed area of the inner pipe.

With regard to claim 43, the prior art of record does not teach or suggest a double pipe structure in which an inner pipe for circulating fluid of high pressure is disposed in an outer pipe for circulating fluid of low pressure and the inner pipe and the outer pipe are formed differently from each other and are joined to the joint member at respective end portions, wherein the inner pipe and the outer pipe each define a plastically deformed area directly engaging the joint member for joining the joint member to the inner and outer pipes, wherein the joint member includes a cylindrical portion formed at an end of the joint member and connected to the outer pipe, an insertion hole is formed at an opposite end of the joint member inside the joint member and the inner pipe extends through the insertion hole, and a port for refrigerant of low pressure and a port for refrigerant of high pressure are connected to another pipe, wherein the inner pipe protrudes from an end portion of the outer pipe, extends through the insertion hole through the cylindrical portion, and is joined to the opposite end of the joint member by drawing for expanding an end portion of the inner pipe to form the plastically deformed area of the inner pipe or by bead pressure-contact machining the end portion of the inner pipe to form the plastically deformed area of the inner pipe, and the outer pipe is joined to the cylindrical portion formed at

the end of the joint member by drawing for contracting the end portion of the outer pipe to form the plastically deformed area of the outer pipe.

With regard to claim 47, the prior art of record does not teach or suggest a double pipe structure comprising: a double pipe in which an inner pipe is laid in an outer pipe, the inner pipe and the outer pipe being formed differently from each other; and a joint member joined to an end portion of the inner pipe and an end portion of the outer pipe; wherein the inner pipe is joined to the joint member in a state in which the inner pipe is arranged eccentric with respect to the outer pipe; an end portion of the inner pipe and an end portion of the outer pipe each define a plastically deformed area directly engaging the joint member for joining the joint member to the inner and outer pipes; and the end portion of the inner pipe extends from the end portion of the outer pipe, extends through an insertion hole defined by the joint member and is joined to the joint member by expanding the end portion of the inner pipe at a side of the joint member to form the plastically deformed area of the inner pipe.

With regard to claim 53, the prior art of record does not teach or suggest a double pipe structure comprising: a double pipe in which an inner pipe is laid in an outer pipe, the inner pipe and the outer pipe being formed differently from each other, and a joint member joined to an end portion of the inner pipe and an end portion of the outer pipe; wherein the joint member includes a body, a cylindrical male portion protruding from the body and to which the outer pipe is connected, an extending passage extending from the outer pipe and communicating with a hollow portion of the cylindrical male portion, and a groove, a diameter of the groove being

smaller than an outer diameter of the cylindrical male portion, formed on the cylindrical male portion, and wherein the outer pipe is disposed over the cylindrical male portion of the joint member, the end portion of the outer pipe defining a plastically deformed area disposed within the groove of the cylindrical male portion to join the outer pipe to the cylindrical male portion of the joint member.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

**CONCLUSION:**

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fannie Kee whose telephone number is (571) 272-1820. The examiner can normally be reached on 8:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (571) 272-7087. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Aaron M Dunwoody/  
Primary Examiner, Art Unit 3679

/F. K./  
Examiner, Art Unit 3679  
March 17, 2010